

Support for the amendment to claims 1 and 9, reciting that the first and second images are formed by printing (as opposed to “forming”) can be found throughout the specification and claims as originally filed. See, for example, page 20, lines 17-25. Applicants respectfully request reconsideration of the pending claims in view of the foregoing amendment and in light of these remarks.

III. Rejections Under 35 U.S.C. § 103(a)

The Examiner has rejected all of the pending claims under 35 U.S.C. § 103(a) as allegedly being unpatentable in view of U.S. Patent No. 5,423,252 (Yamamoto), WO 91/01884 (Redford), WO 97/16075 (Ream) and U.S. Patent No. 4,578,273 (Krubert). Applicants respectfully traverse.

A rejection under 35 U.S.C. § 103(a) must include a determination of the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of skill in the art. Graham v. John Deere Co., 383 U.S. 1, 17 (1966). Secondary indicia of nonobviousness, such as commercial success, long-felt need, failure by others and copying are also considered. B.F. Goodrich Co. v. Aircraft Braking Systems Corp., 72 F.3d 1577, 1582 (Fed. Cir. 1996).

Under 35 U.S.C. § 103(a), for a prima facie case of obviousness relying on a combination of references, the law requires a motivation in the prior art that would lead one of ordinary skill in the art to make the combination. The purpose of this requirement, repeatedly emphasized by the Federal Circuit in current decisions, is to prevent “hindsight” rejections; where every advancement in the art seems obvious once the problems are laid

out and the solution set forth in the applicant's specification as a blueprint. Thus, a rejection under 35 U.S.C. § 103 must find specific motivation for the combination made. See In re Werner Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) ("[A] rejection cannot be predicated on the mere identification . . . of individual components of claimed limitations. Rather particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.") Applicants respectfully submit that motivation is lacking in the present instance, and that one of ordinary skill in the art would not find the claimed invention obvious in view of any of the cited references.

In the present case, the invention is directed to methods for printing registered multicolor images on shaped edible pieces. The independent claims all recite that at least two printing stations are used and that a pressure differential holds the shaped edible pieces in registration between the two printing stations. This combination of elements is not found in any of the cited prior art references, taken alone or together. In general, an entirely different set of parameters is involved printing on shaped pieces as compared to printing on flat pieces. Likewise, printing on edibles is fundamentally a different field from printing on non-edibles, and printing multicolored images is fundamentally different from printing a single-color ink image.

The cited references teach individual claim elements in their respective fields. Both Yamamoto and Redford, for example, teach the use of a vacuum system to hold an edible piece (in both cases a medicine tablet) in a recess. However, neither of these

references teaches or suggests holding pieces in registration between printing stations or making multicolor images. In fact, these patent disclosures are directed to pharmaceutical labeling, which suggests very limited (if any) requirements for registered multicolor printing. The cited prior art lacks a disclosure that would make the disclosure of Yamamoto or Redford pertinent to the method disclosed in the present application.

*MW
multicolored
in
edible*

Ream and Krubert teach printing a multicolor registered image at two printing stations. However the substrates used in Ream and Krubert are all flat, and they also appear to have other characteristics which obviate the necessity of holding pieces in registration with vacuum between printing stations. In any event, there is clearly no teaching of this feature in either Krubert or Ream. Nothing in the references provides any teaching that would lead one of ordinary skill in the art to combine and/or modify the references as suggested by the Examiner to arrive at the presently claimed invention.

The scope and content of the prior art have not been correctly characterized in the Office Action. At page 2 of the Office Action, the Examiner relies on "applicants' admission of the prior art at pages 1-12 of the specification . . . that it was known to print multicolor images on various products including food and that the multicolor images were made by two or more printing stations." Applicants respectfully disagree with this characterization.

The extent of the prior art disclosure of printing multicolor images on edible items is found in WO 97/16075 (Ream), described in the present specification at page 4, line 22 to page 5, line 11. Ream is directed to printing on flat pieces such as chewing gum. The Ream application refers to confectionery that can be printed besides chewing gum, at

page 5, line 37 to page 6, line 2, but all of the described items (understood as they would be by one of ordinary skill in the art) are flat, and they are specifically distinguished from tablets for the purpose of printing (see page 6, lines 2-7). Thus, the statement concerning applicants alleged "admissions" fails to address the scope of the prior art, i.e. what technology was available for printing multicolor registered images onto shaped pieces.

The Office Action alleges further at pages 2-3, that "applicants' admissions of the prior art also discloses that it was known in the art that it was important when providing two or more printing stations that the object to be printed is in the same position at the second position as it was in the first printing station to achieve good images." This is not admitted prior art in the sense the Examiner uses it.

The Examiner is evidently referring to the passage in the specification at page 5, lines 12-23, and in particular line 17 ("Such alignment is known as registration.") This passage does not imply that the prior art had a means for keeping edible pieces in registration between two printing stations, or even that the failure to obtain "registration" between printing stations was a recognized problem in the art. The specification simply states that printing of multicolor images on shaped pieces was limited due to the lack of technology to accomplish the task.

In summary, the Examiner reads too much into applicant's "admissions," and in doing so engages in classic "hindsight" reconstruction of applicants' invention.

A significant difference between the claimed invention and the prior art is that the claimed step of holding the pieces in registration between printing stations is not

found in the prior art. Registration of pieces is not an issue in Ream. Registration is not even mentioned as one of the factors affecting print quality. See page 17, lines 24-33:

The quality of the printed indicia on the confectionery will be a function of the quality of the engraving on the design roller 34, as well as other factors, such as how well the confectionery is dedusted, how good of an image transfer there is between the design roller 34 and the rubber roller 36, as well as onto the confectionery itself, and how clean the rollers 34 and 36 are kept of dusting compound. It is preferred to use an engraving on the design roller having a resolution of 400 dpi or better.

Moreover, from the discussion of manual alignment in Ream at page 18, lines 4-14, it is clear that Ream does not disclose holding the pieces in registration between printing stations. To the contrary, manipulation of the printing station itself is contemplated:

To further promote quality printing of indicia on the sheets 22 of chewing gum, the printing device 32 has a lateral adjustment system (not shown). The lateral adjustment system allows the operator of the apparatus 10 to center the printing, from side to side, while the printing machine 24 is running. Similarly, the printing machine 24 includes a circumferential printing register (not shown). This printing register will allow the operator to center the printing, front to back, while the printing machine 24 is running.

There is clearly no step of maintaining registration between printing stations contemplated in Ream and no motivation for introducing that modification into Ream. Even more clearly no motivation has been provided for introducing these modifications into a system for printing on shaped edibles.

Yamamoto does not disclose two printing stations, registration of pieces between printing stations or the printing of a multicolor registered image. The Examiner correctly notes that Yamamoto teaches pockets or recesses for holding tablets, and that

vacuum is applied through device 121 to hold the tablets during printing. However, the "air absorption device" 121 is stationary, and therefore once the piece passes the device 121, the pieces are not held in place at all, and certainly not in registering relationship between two printing stations. Yamamoto is discussed in the specification at page 6, and the characterization there is accurate. The assertion of the Examiner, that the teachings of Yamamoto would readily be applied to an application where multicolor registered images were formed at two printing stations is without foundation in Yamamoto or any other prior art of record.

Redford also does not show registration of images. In Figures 1 and 2, and at page 8, line 34 to page 9, line 2, Redford shows piece 10 seated in a recess 23 with the aid of vacuum in chambers 27 and 28, and transported past a printing station 35. This first printing step forms a background or primer coat, not an image. The "Motrin®" labelling is formed by a laser marking system 41 which actually removes ink from the background. Thus Redford, like Yamamoto does not show registration of images.

Krubert, similar to Ream, teaches forming images on generally planar food items. There is no discussion of registration and this concept does not appear to be relevant to the Krubert disclosure, where the food items are disclosed as being placed individually and manually on a mandrel prior to printing (see Krubert col. 3, lines 45-46). As with Ream, nothing in the reference suggests modifications to accommodate a system where the pieces need to be held in registration utilizing recesses using vacuum.

The references (Redford and Yamamoto) which teach printing on medicine tablet are not compatible with the references (Ream and Krubert) which teach application

of multicolor ink designs to soft edible substrates. These are distinct fields of endeavor and insufficient motivation has been provided to make the asserted combination.

For at least the foregoing reasons, applicants submit that the pending claims are patentable over the cited references, whether taken alone or together. Accordingly, it is respectfully requested that the claims be allowed and the case passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should be directed to our new address given below.

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APPENDIX

MARK-UP SHOWING CHANGES TO THE CLAIMS

$M \rightarrow M+ \rightarrow M^c M$

could be circular or straight transportor

multiple images could be overlaid next to each other
1. (Amended) A method to form multiple images in substantial registration on shaped edible pieces, said method comprising the steps of:

[forming] printing an image on a shaped edible piece to form a printed piece

at a first printing station;

on a transporting surface

transporting the printed piece to a second printing station and maintaining a registering relationship of said printed piece from said first printing station to said second printing station by applying a pressure differential to a portion of said printed piece effective to maintain said printed piece in a set position in a transporting recess; and [forming] printing a second image on said printed piece while maintaining said registering relationship.

Claims 5-8 have been cancelled.

9. (Amended) A method to form multiple images in substantial registration on a shaped edible piece, said method comprising the steps of:

retaining a shaped edible piece against a recess formed on a transporting
surface by applying a pressure differential to a portion of said shaped edible piece effective
to urge said shaped edible piece against said recess;

[forming] printing a first image on said shaped edible piece to form a
printed piece at a first printing station; and

[forming] printing a second image on said printed piece while maintaining a
registering relationship of said first image to said second image.

Claims 15-38 have been cancelled.

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